8EHQ-1195-13545

PPSC
PETROLEUM PRODUCT STEWARDSHIP COUNCIL
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RETURN RECEIPT REQUESTED

TSCA Docket Processing Center
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
RM G-099
401 M Street, S.W.
Washington, D.C. 20460

Contains No CBI

88960000025

RE: TSCA 8(e) Submission for Naphtha (petroleum), light alkylate

Dear Sir:

The Petroleum Product Stewardship Council is submitting this notice pursuant to Section 8(e) of the Toxic Substances Control Act (TSCA). This submittal relates to Naphtha (petroleum), light alkylate which is on the TSCA Inventory of Chemical Substances. The Chemical Abstract Services Number is 64741-66-8. It is commonly called light alkylate naphtha (LAN), and its principal use is as a gasoline blending stream.

We are advising the EPA of preliminary results obtained in a series of acute aquatic toxicity studies on the water accommodated fraction of LAN. The studies are sponsored by the Petroleum Product Stewardship Council, a consortium formed to conduct voluntary testing of petroleum refinery streams. The studies were conducted in a closed system to minimize the loss of volatile hydrocarbons. All studies, with the exception of the freshwater algae, were conducted using the 24 hour static renewal design. The results contained in the audited draft reports are summarized below (in mg/L).

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Test Organism	Nominal EC_{50} or LC_{50}	Measured EC_{50} or LC_{50}	Nominal NOEC	Measured NOEC
Freshwater:				
Daphnia	32	0.556	18	0.339
Fathead Minnow	8.2	0.305	5.2	0.166
Algae	45	0.741	18	0.353
Saltwater				
Mysid shrimp	13.8	0.272	9.2	0.218
Silverside Minnow	27	0.423	12	0.160

The nominal concentrations are based on the loading rate, or amount of test material added to make each water accommodated fraction. The measured concentrations are determined by the quantified sum of the following LAN components; 2,3-dimethylbutane, 2,4-dimethylpentane, 2,2,4-trimethylpentane, 2,5-dimethylhexane, 2,3,4-trimethylpentane, 2,3,3-trimethylpentane and 1-methyl- 1-ethyl-cyclopentane. These components represent virtually all of the measurable hydrocarbons in the water accommodated fraction.

Testing a volatile hydrocarbon mixture with limited water solubility required several adaptations of a typical static-renewal system. For example, to achieve equilibrium in the water accommodated fractions, samples were stirred for 12-hours (saltwater) or 24-hours (freshwater) in closed containers with minimal headspace. The actual studies were conducted in closed systems with no headspace. This test design was used to maintain constant hydrocarbon concentrations throughout the exposure period.

When the final reports from these studies are available we will forward a copy to EPA. If you have any questions about this submission, please contact Paula Podhasky at (202) 414-4156.

Sincerely,

Charles R. Clark (PP)

Charles R. Clark, Ph.D., D.A.B.T.
Chairman, Petroleum Product Stewardship Council